

LYUYEV, Andrey Ivanovich; SOLOV'YEV, P.M., otv. red.; VINOGRADOVA, G.V.,
red.; PROZOROVSKAYA, V.L., tekhn. red.

[Manual on safety engineering for miners] Posobie po tekhnike be-
zopasnosti dlia shakhterov. Moskva, Gos. nauchno-tekhn. izd-vo
lit-ry po gornomu delu, 1961. 86 p. (MIRA 14:6)
(Coal mines and mining—Safety measures)

KILYACHKOV, Anatoliy Petrovich; VOSTROV, I.D., otvetstvennyy redaktor;
SHUSHKOVSKAYA, Ye.L., redaktor izdatel'stva; VINOGRADOVA, G.V.,
redaktor izdatel'stva; ZAZUL'SKAYA, V.F., tekhnicheskiy redaktor

[Opening and systems of working coal deposits] Vskrytie i sistemy
razrabotki ugol'nykh mestorozhdenii. Moskva, Ugletekhizdat, 1957.
391 p. (MLRA 10:9)

(Coal mines and mining)

VOROB'YEV, Boris Mikhaylovich, BOBYLEV, Aleksandr Petrovich, KILIYACHKOV, A.P.
otv.red.; SHUSHKOVSKAYA, Ye.L. red.; VINOGRADOVA, G.V., red.;
IL'INSKAYA, G.M., tekhn.red.; TERPIGOREV, A.M., red.

[Fundamentals of mining] Osnovy gornogo dela. Pod obshchei red.
A.M. Terpigoreva. Moskva, Ugletekhizdat, 1958. 320 p. (MIRA 11:9)
(Mining geology)
(Mining engineering)

PROKHIMAK, Dmitriy Yakovlevich; KUKLIN, Boris Konstantinovich; SHUSHKOV-
SKAYA, Ye.L., redaktor izdatel'stva; ~~VINOGRADOVA, G.V.~~, redaktor
izdatel'stva; IL'INSKAYA, G.M., tekhnicheskii redaktor

[Working Donets Basin coal beds through inclined winzes to lateral
or group drifts] Opyt razrabotki ugol'nykh plastov Donbassa cherez
nakhlonnye gezenki na polevye ili gruppovye shtreki. Moskva, Ugle-
tekhizdat, 1956. 38 p. (MLRA 9:10)

(Donets Basin--Coal mines and mining)

GRINER, Aleksandr Semenovich; GELESKUL, Mikhail Nikitich; SHUSHKOVSKAYA,
Ye.L., redaktor izdatel'stva; VINOGRADOVA, G.V., redaktor izda-
tel'stva; SABITOV, A., tekhnicheskii redaktor

[Engineering essentials for beginning miners] Tekhminimum dlia
nachinaiushchikh rabotat' na shakhte. Moskva, Ugletekhizdat, 1956.
137 p. (MLR: 9:9)
(Coal mines and mining)

I. 7741-66 EWP(e)/EWT(m)/EWT(l)/EWT(t)/EWT(b) EWT(c) EWT(d)
 ACC NR: AP5028717 SOURCE CODE: UR/0363/65/001/011/1889/1891

AUTHOR: Zorina, Ye. L.; Dembovskiy, S. A.; Velichkova, V. B.; Vinogradova, G. Z.

ORG: Institute of General and Inorganic Chemistry im. N. S. Kurnakov, Academy of Sciences, SSSR (Institut obshchey i neorganicheskoy khimii Akademii nauk SSSR)

TITLE: Infrared absorption of As_2Se_3 , As_2Se_5 , and $AsSe_4$ in the glassy state

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 11, 1965, 1889-1891

TOPIC TAGS: arsenic, selenide, glassy state, IR spectrum, absorption spectrum

ABSTRACT: A study has been made of the IR absorption of glassy As_2Se_3 , As_2Se_5 , and $AsSe_4$ in the 0.67--25 μ region with the IKS-14 spectrophotometer. The absorption spectra of the above selenides in the glassy state were shown to have a weak 15.6 μ band, which was ascribed to impurities, and a strong 20.9 μ band, due to selenium. In addition, $AsSe_4$ has a 12.7 μ band, due to As_2O_3 . No fundamental absorption bands were observed in the region studied. The absorption and reflection coefficients, and the refractive indexes at the edge absorption band for glassy As_2Se_3 , As_2Se_5 , and $AsSe_4$ were determined. Orig. art. has: 1 figure and 1 table. [B0]

SUB CODE: IC/ SUBM DATE: 22Jun65/ ORIG REF: 009/ OTH REF: 003/ ATD PRESS: 4/4/

UDC: 546.19'23:543.422.4

Card

1/1

07012106

DEMBROVSKIY, S.A.; VINOGRADOVA, G.Z.; PASHINKIN, A.S.

Crystallization of glasses of the Se - Ge system. Zhur. neorg.
khim. 10 no.7:1657-1659 J1 '65. (MIRA 18:8)

AUTHOR: Dembovskiy, S. A.; Vinogradova, G. Z.; Pashinkin, A. S.

TITLE: Crystallization of glasses in the Se-Ge system

SOURCE: Zhurnal neorganicheskoy khimii, v. 10, no. 7, 1965, 1657-1659

TOPIC TAGS: selenium germanium system, glass crystallization, phase diagram, glass formation, germanium diselenide

ABSTRACT: The part of the Se-Ge system in the 75 to 100 at% Se composition range has been studied by DTA and x-ray structural analysis to refine the region of glass formation in the phase diagram previously studied (Liu Ch'un-Hua, A. S. Pashinkin, and A. V. Novoselova. Dokl. AN SSSR, 146, 1092, 1962) and to correlate the crystallizability of glasses in this region with the corresponding phase diagram. Glass samples were synthesized by a known method (L. G. Ayo, V. F. Korovina. Optiko-mekhn. promyshlennost', no. 4, 31, 1961) and heat treated at 15 to 140°C for 48 hrs. Partial crystallization occurred in all heat treated glasses. The degree of crystallization was determined by x-ray diffraction. The maximum crystallization, 100%, was observed visually.

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ACCESSION NR: AP5018247

in the composition containing 8 at% Ge. This observation was confirmed by x-ray patterns and by comparing the Tamman triangles for this alloy with those of other glasses. The glasses obtained in the system Se-As-Ge are similar to the point corresponding to 8 at% Ge. This composition was attributed to a eutectic analogous to those in the Se-As-Ge and some other systems. The partial phase diagram of the Se-As-Ge system shows the eutectic point at 40 at% Se and 40 at% As. The glasses obtained in the system Se-As-Ge are similar to the point corresponding to 8 at% Ge. The glass of eutectic composition could be completely crystallized, unlike the analogous composition in the Se-As-Ge system. (See figures.)

ASSOCIATION: none

SUBMITTED: 02Mar64

ENCL: 00

SUB CODE: MT

NO RET SOV: 008

OTHER: 000

ATD PRESS: 4041

Card 2/2

VINOGRADOVA, G.Z.; DEMBOVSKIY, S.A.

Vitrification region in the system S - As. Izv. AN SSSR.
Neorg. mat. 1 no.10:1838-1844 O '65. (MIRA 18:12)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova
AN SSSR. Submitted June 3, 1965.

ZORINA, Ye.I.; DEMBOVSKIY, S.A.; VELICHKOVA, V.B.; VINOGRADOVA, G.Z.

Infrared absorption of vitreous As_2Se_3 , As_2Se_5 , and $AsSe_4$.

Izv. AN SSSR. Neorg. mat. 1 no.11:1889-1891 N '65.

(MIRA 18:12)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova
AN SSSR. Submitted June 22, 1965.

VINOGRADOVA, I.

Fifth annual conference of young scientists dedicated to the 77th anniversary
of the birth of Academician Nikolai Milovich Burdenko. Vop.neirokhir. 17
no.5:62-63 S-0 '53. (MLRA 6:11)
(Nervous system)

VINOGRADOVA, I.A.

Representation of a function by an indefinite A-integral. Izv. AN
SSSR.Ser.mat. 26 no.4:581-604 J1-Ag '62. (MIRA 15:8)
(Integrals, Generalized)

VINOGRADOVA, I.A.

A-integration of a function conjugate to an integrable one.. Izv. AN SSSR.
Ser. mat. 27 no.2:305-328 Mr-Ap '63. (MIRA 16:4)
(Functions, Continuous)

VINOGRADOVA, I.A.

The indefinite A-integral. Dokl. AN SSSR 135 no.1:9-11 N'60.
(Integrals) (MIRA 13:11)

VINOGRADOVA, I. A.

The indefinite A-integral. Izv. AN SSSR. Ser. mat. 27 no.4:
761-776 J1-Ag '63. (MIRA 16:8)

(Integrals)

DP

84653

S/020/60/135/001/001/030
C111/C222

16.2800

AUTHOR: Vinogradova, I.A.

TITLE: On the Indefinite A - Integral |b

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 1 pp. 9 - 11

TEXT: $f(x)$ is called A - integrable on $[a, b]$ if

$$(1) \quad \mu \in \left\{ x, x \in [a, b], |f(x)| > n \right\} = o\left(\frac{1}{n}\right)$$

and if there exists

$$(2) \quad \lim_{n \rightarrow \infty} \int_a^b [f(x)]^n dx,$$

$$\text{where } [f(x)]^n = \begin{cases} f(x) & \text{for } |f(x)| \leq n \\ 0 & \text{for } |f(x)| > n \end{cases}.$$

The limit value (2) then is called the definite A - integral of $f(x)$ on $[a, b]$.

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C111/C222

On the Indefinite A - Integral

It is said that the A - integral contradicts the Denjoy - integral in the point $x \in [a, b]$ if $f(x)$ on $[a, x]$ is A- and D- integrable and

(D) $\int_a^x f(t)dt \neq (A) \int_a^x f(t)dt$. It is said that $f(x)$ has an indefinite

A - integral on $[a, b]$ if $f(x)$ on $[a, x]$ is A - integrable for all $x \in [a, b]$.

Theorem 1: There exists a function $f(x)$, $x \in [0, 1]$, integrable on $[0, 1]$ in the sense of the improper Lebesgue integral and having the indefinite A - integral on $[0, 1]$ which is discontinuous in the point $x = 1$.

Theorem 2: There exists a function $f(x)$, $x \in [0, 1]$ with the following properties:

- a) $f(x)$ is integrable on $[0, 1]$ according to Denjoy and is the strong derivative of its indefinite D - integral.
- b) On $[0, 1]$ there exists the definite continuous A - integral

$$A(x) = (A) \int_0^x f(t)dt.$$

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S/020/60/135/001/001/030
C111/C222

On the Indefinite A - Integral

$$c). A(x) \neq D \int_0^x f(t)dt \quad (x \in P, \mu P > 0)$$

where $A(x)$ either has not the N-property or has no asymptotic derivative on a set of positive measure or has a derivative almost everywhere which on a set of positive measure is different from $f(x)$.

Theorem 3: Let $F(x)$, $x \in [0,1]$ be an arbitrary continuous function, $F(0) = 0$. Then there exists an $f(x)$ having the indefinite A - integral

$$A(x) = (A) \int_0^x f(t)dt \text{ on } [0,1], \text{ where } A(x) = F(x), x \in [0,1], \text{ and the}$$

$$\text{sequence } A_n(x) = (A) \int_0^x [f(t)]^n dt \text{ on } [0,1] \text{ converges uniformly to}$$

$A(x)$ for $n \rightarrow \infty$.

The author mentions N.N. Luzin, I.I. Privalov, A.N. Kolmogorov, Yu.S. Ochan, P.L. Ul'yanov and A.G. Dzhvarsheysvili.

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On the Indefinite A - Integral

84653

S/020/60/135/001/001/030
C111/C222

X

There are 10 references: 7 Soviet, 2 Polish and 1 English.

PRESENTED: June 28, 1960, by A.N. Kolmogorov, Academician

SUBMITTED: June 24, 1960

Card 4/4

VINOGRADOVA, I. A.

Dissertation defended for the degree of Candidate of Physicomathematical Sciences at the Mathematical Institute imeni V. A. Steklova 1962:

"An Indeterminate A-Integral."

Vest. Akad. Nauk SSSR. No. 4, Moscow, 1963, pages 119-145

VINOGRADOVA, I. A.

"Certain Investigations on the Organization of the Molding Process in the Iron Casting Shops of Serial Type Mills." Cand Tech Sci, Leningrad Polytechnic Inst, Leningrad, 1954. (RZhKhim, No 7, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

VINOGRADOVA, I.D.

Radiosensitivity and embryogenesis of *Ascaris* sum eggs.
Biofizika 5 no.1:55-59 '60. (MIRA 13:6)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(ASCARIS radiation eff.)

VINOGRADOVA, I.D.

SAF'YANOVA, V.M.; GROKHOVSKAYA, I.M.; BUDAK, A.P.; GAYKO, B.A.; VINOGRADOVA,
I.D.; POTOTSKAYA, V.A.

Experiment in treating plants with insecticides to control blood-
sucking flies and midges under natural conditions [with English
summary in insert]. Zool.shur. 35 no.9:1335-1341 S '56.
(MLRA 9:12)

1. Otdel parazitologii i meditsinskoy zoologii Instituta epidemio-
logii i mikrobiologii imeni N.Y.Gamaleya Akademii meditsinskikh
nauk SSSR.

(Diptera) (Insecticides)

VINOGRADOV, I. D.

Effect of Radiation on Deoxynucleoproteins *in vitro* and *in vivo*

Ya. L. Spechtman, E. V. Moiseyenko, G. V. Bippova
and I. D. Vinogradov

The effect of ionizing radiations on deoxynucleoproteins (DNP) was studied both during the irradiation of cells and during the irradiation of DNP isolated from non-irradiated cells. The nucleoprotein was isolated from lysosome preparations of *B. coli*, from the sperm of *Mus musculus*, and from homogenates of mouse spleen. As a criterion of the radiation effect the authors used the test described by other workers, namely, the decomposition of the nucleoprotein complex on incubation with trypsin and the separation of free DNA from the precipitate. It was established that (1) the separated DNP is highly radiosensitive: a dose of 1000 r yields considerable changes in DNP from *B. coli*. This effect is apparently unrelated to the activation of the DNA-ase. (2) When bacterial cells were irradiated and the DNP was later isolated and investigated, the radiosensitivity was found to be lower by two orders of magnitude compared with that of the isolated DNP. (3) Sperm heads of *M. musculus* were found to be highly radioresistant when using the same test.

These data are interpreted as follows: DNP in the organism is in a highly concentrated state, and during the irradiation of a living cell only the direct action of radiation takes place. On the other hand when a nucleoprotein is irradiated *in vitro*, we have to deal mostly with the indirect effect of radiation via the formation of active radicals in water. This problem requires further study.

Biochemical Institute of the Academy of Sciences of the USSR, Moscow

report presented at the 2nd Intl. Congress of Radiation Research,
Harrogate/Yorkshire, Gt. Brit. 5-11 Aug 1962

SHEKHITMAN, Ya.L.; VINOGRADOVA, I.D.; MOISEYENKO, Ye.V.

Effect of oxygen on the action of radiation on DNA. Radiobiologia
4 no.4:473-475 '64. (MIRA 17:11)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

VINOGRADOVA, I.E.; KULAGINA, S.S.

Investigation of the structural transformations of surface layers
and approximate evaluation of friction temperature. Zav.lab. 28
no.8:984-986 '62. (MIRA 15:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke
nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva.
(Metallography) (Mechanical wear)

S/883/62/000/000/016/020
E194/E155

AUTHORS: Vinogradova, I.E., Alekseyeva, Ye.A., and Kulagina, S.S.
TITLE: Temperature methods of assessing the properties of
E.P. oil
SOURCE: Metody ispytaniya na iznashivaniye; trudy soveshchaniya,
sostoyavshegosya 7-10 dek. 1960. Ed. by
N.M. Khrushchov. Moscow, Izd-vo AN SSSR, 1962. 164-175
TEXT: Point-contact friction machine tests are simple and
sensitive to the effects of E.P. additives, although information
is generally not available about the actual temperatures on the
friction surfaces, except in four-ball machine type KT -2 (KT-2),
where the rubbing speeds are low and the oil is assessed by the
critical temperature at which the oil film breaks down. In
conventional four-ball machines the effects are more complicated
and it is recommended to assess the contact surface temperature by
study of structural changes in the surface layers of the metal.
A study was made of the microhardness distribution near the wear
scar of sectioned balls from the four-ball machine. The temperature
distribution was estimated by interpolation of microhardness
Card 1/2

Temperature methods of assessing...

S/883/62/000/000/016/020
E194/E155

results on the tempering curve of the steel in question. The differing effects of chlorine- and sulphur-containing additives on the load/temperature characteristics at seizure were determined in this way. Most sulphur additives reduce the temperature of the friction surfaces, whilst chlorine additives prevent welding. Thermographic analysis is a most sensitive procedure for studying physical and chemical processes but has been little used in studying E.P. oil. It was accordingly used to judge of changes in the aggregate state from inflection points on the heating or cooling curves, which correspond to endothermic or exothermic reactions. The results were compared with those obtained in four-ball machines. Test results are quoted for a number of sulphur- and chlorine-containing additives in oils, both with and without iron powder. It is, of course, necessary to separate the reactions between additives and iron from those corresponding to evaporation or thermal decomposition of the additive. It is desirable to check the reaction between additives and iron up to temperatures above the highest bulk oil temperature and below the seizure temperature, i.e. in the range 150 to 250 °C. ✓

Card 2/2 There are 8 figures and 2 tables.

KRAGEL'SKIY, I.V.; VINOGRADOVA, I.E.; SLOBODYANNIKOV, S.S., kandidat
tekhnicheskikh nauk; POPOVA, S.M., tekhnicheskiiy redaktor.

[Coefficients of friction; a reference manual] Koeffitsienty
trenia; spravochnoe posobie. Moskva, Gos. nauchno-tekhn.
izd-vo mashinostroit. lit-ry, 1955. 188 p. (MLRA 8:8)
(Friction)

ROZENBERG, Yuriy Aleksandrovich; VINOGRADOVA, Irina Ernestovna; LEVINA,
Ye.S., vedushchiy red.; ~~FEDOTOVA, I.G., tekhn.red.~~

[Lubrication of machinery mechanisms; selection and use of
lubricating oils] Smazka mekhanizmov mashin; vybor i primeneniye
masel. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi
lit-ry, 1960. 339 p. (MIRA 14:2)
(Lubrication and lubricants)

²⁶³⁵
S/081/62/000/005/080/112
B162/B101

11.9700
AUTHORS:

Vinogradova, I. E., Petyakina, Ye. I., Shames, F. Ya.

TITLE:

Antiseizing additives in oils for automobile gears and the mechanism of their action

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 5, 1962, 527-528, abstract 5M212 (Sb. "Prisadki k maslam i toplivam". M., Gostoptekhizdat, 1961, 214-223)

TEXT: An examination is made of the usual types of additives to lubricating oils which reduce friction and wear, and the mechanism of their action. Results are given and discussed of tests on a 4-ball friction machine (in accordance with GOST 9490-60 (GOST 9490-60)) using solutions of 22 organic compounds and some combinations of 2 of these compounds in DS-14 (DS-14) oil. The compounds tested included alkyl xanthogenate derivatives (including the additives LZ-6/9 (LZ-6/9), LZ-19 (LZ-19), and LZ-23 (LZ-23)), sulfured terpenes, chlorinated hydrocarbons, chloroalkyl phosphinic esters, S-Cl-containing compounds, molybdenum blue (I), and S-P-containing compounds.

Card 1/2

Antiseizing additives ...

S/081/62/000/005/080/112
B162/B101

It is shown that the simultaneous presence in oil of S- and Cl-containing compounds synergetically raises the antiseizing efficiency. With the aim of reducing the increased wear when using oils containing S- and Cl-containing additives at the same time, under moderate operating conditions, it is suggested that a third additive -11 (DF-11) (Zn-dialkyl dithiophosphate) be added. The high antiseizing efficiency of chloroalkyl phosphinic esters is noted, in particular butyl ester of trichloromethyl phosphinic acid (additive khloref-40) in concentration of 2%, but it is shown that it is unstable at temperatures above 130°C. It is found that I is a more powerful antiseizing additive than MoS₂, and that a combination of I with chlorinated paraffin has a particularly high efficiency. The mechanism of action of I is discussed. 21 references. [Abstracter's note: Complete translation.]

Card 2/2

15.6600

25503

S/065/61/000/007/004/005
E030/E435

AUTHORS: Vinogradova, I.E., Alekseyeva, Ye.A.
TITLE: Thermographic investigation of E.P. (entrance pressure)
additives in oils
PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1961, No.7,
pp.56-61

TEXT: A differential thermocouple system has been applied to study the physical and chemical reactions of E.P. additives on heating, by themselves and in admixture with iron powder, to throw light on the reasons for their effectiveness. Of the thermocouples, one was placed in a beaker containing the additive or additive plus pure iron powder, and the other was placed in a beaker containing calcined magnesium oxide, noted for its absence of heating effects in the range investigated; the cold thermocouple junctions were in a Dewar flask of water at 18°C and the direct reading gave the absolute specimen temperatures. The oil used in testing was AC-14 (DS-14) and the additives were Хлорэф-40 (Khloref-40) (butyl ether of trichlormethylphosphonic acid, $\text{CCl}_3\text{PO}(\text{OC}_4\text{H}_9)_2$), ГХС (GKhS) (hexachlorsulphide $[\text{CCl}_3(\text{CH}_2-\text{CH}_2)_2]_2\text{S}$),

Card 1/2

25503

S/065/61/000/007/004/005
E030/E435

Thermographic investigation of ...

Л3-6/9 (L3-6/9) (ethylene dibutylxanthate ($C_4H_9OCS_2-CH_2)_2$) and chlorinated paraffins (mixtures from $C_{25}H_{51}Cl$ to $C_{25}H_{40}Cl_{12}$). All the additives gave endothermic effects on boiling and, where relevant, on melting, either by themselves or on addition of powdered iron (1:2.5 by weight). The butyl ether also gave an exothermic effect on decomposition at $240^\circ C$; one at $135^\circ C$ with iron powder was verified by repeat experiments at lower iron concentrations to be reaction with the iron. Similarly, the hexachlorsulphide reacted with iron at $153^\circ C$ and the dibutylxanthate at 224 to $238^\circ C$. Chlorinated paraffins scarcely react with iron but the iron catalyses their decomposition, reducing the decomposition from 325 to $285^\circ C$. All these reaction temperatures are below those generated during boundary friction accompanied by wear, thus confirming the anti-friction properties of the additives. A strong correlation is claimed to exist between the degree of wear reduction and the magnitude of the exothermic effect on reaction with iron powder. There are 6 figures, 2 tables and 2 Soviet references.

ASSOCIATION: VNII NP

Card 2/2

KRAGEL'SKIY, Igor' Viktorovich; VINOGRADOVA, Irina Ernestovna;
VASIL'YEV, I.V., inzh., retsenzent; YEGORKINA, L.I., inzh.,
red.; SMIRNOVA, G.V., tekhn. red.

[Friction coefficients; manual] Koeffitsienty trenia; spravochnoe posobie. Izd.2., perer. i dop. Moskva, Mashgiz, 1962.
217 p. (MIRA 15:7)

(Friction)

3/032/62/022/008/009/014
B104/B102

AUTHORS: Vinogradova, I. E., and Kulagina, S. S.

TITLE: Investigation of structural changes in surface layers and estimation of friction temperature.

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 8, 1962, 984 - 986

TEXT: For the metallographic investigation of the surface layers on wearing holes of balls made from 6X6 (ShKh6) steel, these balls were pressed into methacrylate. The metal around a wearing hole was then gradually ground away, examined by microscope and its microhardness determined. The distribution of structural types and the microhardness were recorded graphically and the isotherms of the temperature field associated with the development of the wearing hole were constructed therefrom. The isotherms so obtained deviate somewhat from actuality, since the effect of frictional plastic deformation on the heat set free was not considered. There are 3 figures.

Card 1/2

Investigation of the structural changes ... 3/032/62/028/008/009/014
B104/B102

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke
nefti i gaza i polycheniyu iskusstvennogo zhidkogo topliva
(All-Union Scientific Research Institute for Oil and Gas
Refining and Production of Synthetic Liquid Fuel)

✓

Card 2/2

32397
S/080/62/035/001/009/013
D245/D304

156600

2209

AUTHORS: Vinogradova, I. E., and Alekseyeva, Ye. A.

TITLE: Study of the stability and reactivity of derivatives of chlorophosphinic acids used as anti-wear additives in oils

PERIODICAL: Zhurnal prikladnoy khimii, v.35, no.1, 1962, 176-182

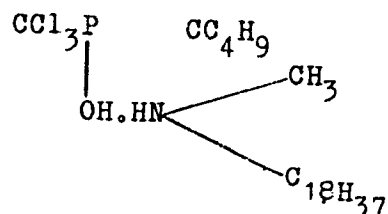
TEXT: The authors used thermographic analysis to study the behavior of chlorophosphinic acid derivatives used as anti-wear additives to gear box oil. Samples were heated to high temperatures slowly with and without addition of powdered Fe. Wear tests were carried out in accordance with GOST 9490-60. It is shown that additives which impart high anti-wear properties to oil undergo a marked exothermic reaction with Fe when heated in this way. The additive "chlorefamin" showed the most satisfactory anti-wear properties at the temperatures studied and had no corrosive effect. It consists of the methyl-octadecylamine salt of butoxytrichloromethyl-phosphinic acid: X

Card 1/2

32397

Study of the stability ...

S/080/62/035/001/009/013
D245/D304



X

This additive does not react with Fe until a temperature of 178°C is reached. (In a gear box, the oil usually reached a maximum temperature of 150°C.) There are 4 figures, 2 tables and 5 Soviet-bloc references.

SUBMITTED: February 17, 1961

Card 2/2

DEKHTYAR, B.A., inzh.; VINOGRADOVA, I.E., kand.tekhn.nauk

Increasing the wear resistance of cardan shaft hinges. Vest.
mash. 42 no.4:56-58 Ap '62. (MIRA 15:4)
(Shafting)

PHASE I BOOK EXPLOITATION

SOV/6543

Vinogradova, Irina Ernestovna

Prisadki k maslam dlya snizheniya treniya i iznosa (Oil Additives for Reducing Friction and Wear) Moscow, Gostoptekhnizdat, 1963. 110 p. Errata slip inserted. 3190 copies printed.

Ed. (Title page): S. E. Kreyn, Doctor of Technical Sciences, Professor; Scientific Ed.: O. M. Yenisherlova; Tech. Ed.: V. V. Voronova.

PURPOSE: This book is intended for engineers, technicians, and scientists working with lubricating materials in various branches of industry.

COVERAGE: The book covers antifriction, antiwear, and antiseizure additives to lubricants. The book is based on Soviet and foreign literature and includes some new experimental data obtained at the All-Union Scientific Research Institute for Oil and Gas Refining and the Production of Synthetic Liquid Fuel (VNIINP). Part I of the book is devoted to the various

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Oil Additives (Cont.)

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types of defects and their origins. The main requirements set forth for various additives are also listed in this chapter, which includes a detailed review of the U.S. gear lubricants. Part II covers the classification, properties, preparation, function, selection, and application of additives according to the type of equipment and the working conditions. The effect of various additives on the friction coefficient and surface wear is discussed in Ch. 1 of Part II. Data on 10 Soviet and 35 foreign lubricant additives containing S, P, Cl, and Zn are tabulated. The Soviet additive MDS (alkyl dithio esters of fatty acids) is listed as an effective antiwear additive. Sulfur-treated terpenes are used as multifunctional (antiwear and anticorrosive) additives under the trade name of VTU MNP564-55 (known in the United States as "Stain Add" and "Amoco-48"). Barium and zinc dialkyl-diaryldithiophosphates (DF-1, DF-11, "vniinp-354", V-501, LZ-317, and others) are the anticorrosive, antiwear motor oil additives widely used in the USSR. The Soviet additive EZ-2 (castor oil treated with P₂S₅) is described as a

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valuable antiwear and antifriction additive. Among others, the following antiswear Soviet additives are listed: LZ-6/9 (ethylene dibutyl xanthate); LZ-24 (ethylene diethyl xanthate); LZ-23 (ethylene diisopropyl xanthate); and LZ-19 (ethylene diisoamyl xanthate). Among the chlorinated paraffins, the Soviet additive "nami-T-122" (containing 40% Cl) is recommended as an antiswear additive to gear box lubricants. The Soviet additive EZ-5 is listed among the sulfur-chlorine-containing additive with high antiswear properties. The use of MoS_2 as an antiswear and antiwear additive to lubricants applied at high temperature and of other metal-containing additives is discussed in Ch. 7 of Part II. The book discusses the function of additives, including the reaction between the additive and a metal under various conditions, surface film formation, stability of the film, and the effect of various substituents in organic phosphorus- and chlorine-containing additives. A new mechanism of the MoS_2 function is proposed, which is based on experimental data obtained by the author in collaboration with Ye. I. Petyakina. Recommenda-

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tions are given for selecting additives to lubricants for automobiles, turbines, milling equipment, metal-cutting equipment, and textile machinery. Tabulated information on the type of additive recommended for various automobile parts is presented. There are 114 references: 36 Soviet and 78 non-Soviet.

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References

AVAILABLE: Library of Congress

SUBJECT: Oil and Gas Industries

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4-2-64

SP/zp/ef

L 35527-65 EWT(m)/EPF(c)/T Pr-4 DJ
ACCESSION NR: AP5008180

S/0286/65/000/005/0057/0058

AUTHORS: Mandel'baum, Ya. A.; Mel'nikov, N. N.; Petyakina, Ye. I.; Vinogradova, I. E.; Pil'menshteyn, I. A.

TITLE: A method for obtaining an antiabrasion additive for lubricating oils.
Class 23, No. 168828

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 5, 1965, 57-58

TOPIC TAGS: abrasion, wear resistance, dialkyl ester, dithiophosphoric acid, dinonyl ester, hexachlorocyclopentadiene

ABSTRACT: This Author Certificate presents a method for obtaining an antiabrasion additive for lubricating oils. The additive is based on dialkyl esters. To improve the quality of the additive, dialkyl esters of dithiophosphoric acid, such as dinonyl ester of dithiophosphoric acid, are subjected to interaction with hexachlorocyclopentadiene.

RELATION: none

SUBMITTED: 28Mar62

NO REF SOV: 000
Card 1/1

ENCL: 00

OTHER: 000

SUB CODES: GC, FP, MT

I 12221-66 ENT(m)/ENP(j)/T DJ/RM

ACC NR: AP6030551

(A, I')

SOURCE CODE: UR/0413/66/000/016/0031/0031

INVENTOR: Sanin, P. I.; Shepeleva, Ye. S.; Borodach, M. S.; Myannik, A. G.
Vorobayev, S. L.; Petyakina, Ye. I.; Vinogradova, I. E.

ORG: none

TITLE: Preparative method for bis(trichloroalkyl) esters of alkylphosphonic acids.
 Class 12, No. 104244, (announced by the Institute of Petrochemical Synthesis, AN SSSR
 (Institut neftekhimicheskogo sinteza, AN SSSR))

SOURCE: Izobreteniya, promyshlennyye obraztzy, tovarnyye znaki, no. 16, 1966, 31

TOPIC TAGS: lubricant additive, mineral oil, alkylphosphonic acid

ABSTRACT: An Author Certificate has been issued for a preparative method for bis(trichloroalkyl) esters of alkylphosphonic acid of the general formula $RP(O)[C(CH_2)_nCCl_3]_2$ where R is an alkyl group and $n = 1, 4, 6, 8$. To obtain such esters suitable as additives to mineral oils, alkylphosphonic dichlorides are treated with trichloroalkyl alcohols in the presence of an organic base, e.g., pyridine. [SM]

SUB CODE: 07, 11/ SUBM DATE: 05May65/ ATD PRESS: 5072

Card 1/1 fv

UDC: 547.26.013.07

L 2940-66 EWT(m)/EPF(c)/T DJ

ACCESSION NR: AP5024388

UR/0286/65/000/015/0068/0068

621.892.8

AUTHOR: Mel'nikov, N. N.⁴⁴; Mandel'baum, Ya. A.⁴⁴; Petyakina, Ye. I.⁴⁴; Vinogradova, I. E.^{33 44}

TITLE: Preparative method for an anti-wear additive to lubricating oil. Class 23, No. 173368

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 15, 1965, 68

TOPIC TAGS: lubricating oil, antiwear additive, lubricant additive

ABSTRACT: An Author Certificate has been issued for a preparative method for an anti-wear additive to lubricating oils which is based on salts of dialkyl thiophosphates. To improve the quality of the additive, the salt is treated with hexachlorocyclopentadiene. [SM]

ASSOCIATION: none

SUBMITTED: 28Mar62

ENCL: 00

SUB CODE: FP

NO REF SOV: 000

OTHER: 000

ATD PRESS: 4110-

Card 1/1

PC

TITLE: Dithiathiones: sulfur-containing additives to lubricating oils

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 5, 1965, 34-36

TOPIC TAGS: diathiacyclopentenethione, additive, lubricating oil, EP agent, antiwear agent/NPT

ABSTRACT: Two 4,5-dithiacyclo-2-pentenethiones with different substituents have been synthesized and tested as lubricating oil additives. The first, 2,3-dimethyl-4,5-dithiacyclo-2-pentenethione proved to have good antiseizing (NPT) properties. It also is a poorly soluble solid. The second, 2,3-dimethyl-4,5-dithiacyclo-2-pentenethione, designated NPT, was prepared from 2,3-dimethyl-4,5-dithiacyclo-2-pentenethione, designated NPT, and sulfur, and quinoline activator at 177C in 74% yield based on charged sulfur. Tests in TS-14.5 oil showed that NPT is one of the most effective antiseizing sulfur-containing additives ever tested. Table

Card 1/2

L 44173-65

ACCESSION NR: AP5011688

NPT caused greater wear than the LZ-6/9 additive at low loads, this drawback could be considerably alleviated by using NPT in conjunction with antiwear additives such as zinc dithiophosphate. NPT exhibited high thermal stability as it did not decompose in the presence or the absence of metal powders or react with them at 20—300°C. NPT was also an antioxidant (in MK-8 oil), but a less effective one than Ionol. NPT passed copper corrosion tests at 100°C. It was concluded that NPT is a suitable difunctional (antiseizing and antiwear) additive to lubricating oils and its production was recommended. (12. art. has: 2 tables, and 5 formulas. (SM)

ASSOCIATION: MGU im. M. V. Lomonosova; VNII NP

SUBMITTED: 00

ENCL: 00

SUB CODE: FP

NO REF SOV: 002

OTHER: 004

ATD PRESS: 3241

Card 2/2

L 4-173-65 EPF(C)BAT m...T Pr-- DI
ACCESSION NR: AP5013644

HR 0065-65/000/005/0014-0036

AUTHOR: Burtseva, T. A.; Vinogradova, I. E.; Plate, A. F.;
Danilova, T. A.

TITLE: Dithia-thiones: sulfur-containing additives to lubricating oils

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 5, 1965, 34-36

TOPIC TAGS: diathiacyclopentenethione, additive, lubricating oil,
EP agent, antiwear agent/NPT

ABSTRACT: Two 4,5-dithiacyclo-2-pentenethiones with different substituents have been synthesized and tested as lubricating oil additives. The first, 2,3-dimethyl-4,5-dithiacyclo-2-pentenethione proved to have good antiseizing [EP] properties but also to be poorly soluble in petroleum oils. The second, 2-neopentyl-3-tert-butyl-4,5-dithiacyclo-2-pentenethione, designated NPT, was prepared from trisobutyl disulfide and quinoline dithiolate at 110°C. NPT also showed good antiseizing properties. Tests in TS-14.5 oil showed that NPT is one of the most effective antiseizing sulfur-containing additives ever tested. While

Card 1/2

L 44173-65

ACCESSION NR: AP5011688

2
NPT caused greater wear than the LZ-6/9 additive at low loads, this drawback could be considerably alleviated by using NPT in conjunction with antiwear additives such as zinc dithiophosphate. NPT exhibited high thermal stability as it did not decompose in the presence or the absence of metal powders or react with them at 20—300C. NPT was also an antioxidant (in MK-8 oil), but a less effective one than Ionol. NPT passed copper corrosion tests at 100C. It was concluded that NPT is a suitable difunctional (antiseizing and antiwear) additive to lubricating oils and its production was recommended. Orig. art. has: 2 tables, and 5 formulas. [SM]

ASSOCIATION: MGU im. M. V. Lomonosova; VNII NP

SUBMITTED: 00

ENCL: 00

SUB CODE: FP

NO REF SOV: 002

OTHER: 004

ATD PRESS: 3241

B JB
Card

2/2

KHÄLIKOV, R.Kh.; VINOGRADOVA, I.E.

Metal reaction with organic sulfur compounds. Khim. i tekhn. topl.
i masel 9 no.2:63-67 F '64. (MIRA 17:4)

ACCESSION NR: AP4014973

S/0065/64/000/002/0063/0067

AUTHORS: Khalikov, R. Kh.; Vinogradova, I.E.

TITLE: Reaction of metals with organic sulfur compounds

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 2, 1964, 63-67

TOPIC TAGS: dixanthogenate, stability, metal reactivity, organic sulfur compound, ethylene xanthate, xanthogen, thermal decomposition, corrosiveness, antiseize property, transmission oil additive

ABSTRACT: The stability and the reactivity with metals of two types of dixanthogenate compounds were investigated: 1) the xanthogens diisopropyl, dibutyl, diamyl and dinonyl; and 2) the ethylene xanthates-diisopropyl and diisobutyl. Thermal decomposition (20-300C investigated) of the dixanthogenates produced the more simple sulfur-containing compounds--hydrogen sulfide, elemental sulfur, mercaptan, dialkylsulfide, dialkyldisulfide and xanthic acid. The corrosiveness and the antiseize properties of the sulfur-

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ACCESSION NR: AP4014973

containing compounds depends on the amount of hydrogen sulfide produced. The xanthogens show higher antiseize properties and greater corrosive aggressiveness toward copper alloys than the ethylene xanthates. In both types of compounds increasing the length of the radical lowers the antiseize properties and increases the stability. Since the stability of the xanthogens is considerably less than that of the ethylene xanthates, they are not recommended as additives to automobile transmission oils. Orig. art. has: 3 tables and 3 figures.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 26Feb64.

ENCL: 00

SUB CODE: MA, FL

NO REF SOV: 000

OTHER: 000

Card 2/2

KHALIKOV, R.Kh.; VINOGRADOVA, I.E.

Stability and reactivity of some xanthogens used as extreme-
pressure additives. Zhur. prikl. khim. 36 no.12:2691-2696
D '63. (MIRA 17:2)

VINOGRADOVA, I.E.; PETYAKINA, Ye.I.; KARAMNOVA, V.P.

Optimum concentration of sulfur and chlorine components in some
sulfur-chlorine antiseizing additives to lubricating oils. Tren.1
izn.mash. no.15:478-485 '62. (MIRA 15:4)
(Lubrication and lubricants--Testing)

S/194/61/000/010/005/082
D256/D301

AUTHOR: Novopashenny, G.N. and Vinogradova, I.G.

TITLE: Fully transistorized voltmeter

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,
no. 10, 1961, 12, abstract 10 A94 (Nauchno-tekhn.
inform. byul. Leningr. politekhn. in-t, 1960, no. 8,
96-97)

TEXT: The circuit diagram and a brief description are pre-
sented of a transistorized voltmeter devised for a.c. voltage meas-
urements in the range from 10 mV (full scale) to 300 V (10 ranges),
its characteristics (range of frequencies and input impedance) cor-
responding to the ~~7-9~~ 9 (L-V 9)-type vacuum-tube voltmeter. The
voltmeter comprises a total of 6 semiconductor devices and consists
basically of the following elements: 1) Input attenuator; 2) input
stage; 3) voltage amplifier; 4) output emitter-follower; 5) single-
wave semiconductor-diode rectifier. The input stage consists of

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Fully transistorized voltmeter

S/194/61/000/010/005/082
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two emitter-followers connected in series in order to obtain at low frequencies a high input impedance of the order of 2 Mohm. The 2×10^5 voltage amplifier includes 3 stages with a common emitter and a strong negative feedback. 3 references. [Abstracter's note: Complete translation]

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1

Card 2/2

VINOGRADOVA, I. I., Eng.

Coal Handling

Experience with storing coal in trenches. Za ekon. top., 9, No. 7, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952, UNCLASSIFIED.

1ST AND 2ND CODES										3RD AND 4TH CODES									
PROCESS AND PROPERTIES INDEX																			
<p><i>BC</i></p> <p><i>A-3</i></p> <p>Isomerization of linalool into camphor. (Rabin) L. E. Yermolenko (J. Gen. Chem. Russ., 1952, 2, 888-889). l-Linalool, when heated with 10-15% of Al and a trace of $HgCl_2$ in CH_2Cl_2, gives 100-100% camphor which is also produced by Sn at 200° to 250° in CH_2Cl_2 in 17-20 min.</p>																			
ASB-51A METALLURGICAL LITERATURE CLASSIFICATION																			
1ST AND 2ND CODES										3RD AND 4TH CODES									
1ST AND 2ND CODES										3RD AND 4TH CODES									

LOBACHEV, S.V., doktor med.nauk; VINOGRADOVA, I.I., kand.med.nauk

Perforating ulcers of the stomach and duodenum in clinical
emergency surgery. Vest.khir. no.10:92-97 '61. (MIRA 14:10)

1. Iz khirurgicheskoy kliniki (zav. - prof. S.V. Lobachev) Moskov-
skogo gorodskogo ordena Trudovogo Krasnogo Znameni nauchno-issledovatel'skogo instituta skoroy pomoshchi im. N.V. Sklifosovskogo
(dir. - zasluzh. vrach USSR M.M. Tarasov).
(PEPTIC ULCER)

VINOGRADOVA, I.L.; MURAZIAN, R.I.; SAFAROVA, A.A.

Dynamics of electrolyte disorders in the burn disease. Probl.
gemat. i perel. krovi 9 no.9:15-18 S '64. (MIRA 18:7)

1. Tsentral'nyy ordena Lenina institut gematologii i perelivaniya
krovi (direktor - dotsent A.Ye.Kiselev) Ministerstva zdrazvo-
okhraneniya SSSR, Moskva.

AGRANENKO, V. A.; VINOGRADOVA, I. L.

Normalization of electrolyte metabolism under the influence of hemodialysis and conservative treatment of acute renal insufficiency. Probl. gemat. i perel. krovi no.4:37-43 '62.

(MIRA 15:4)

1. Iz pochechnogo tsentra (zav. V. A. Agranenko) Tsentral'nogo ordena Lenina instituta gematologii i perelivaniya krovi (dir. - dotsent A. Ye. Kiselev) Ministerstva zdravookhraneniya SSSR.

(RENAL INSUFFICIENCY) (KIDNEYS, ARTIFICIAL)
(ELECTROLYTE METABOLISM)

CHAZOV, Ye.I.; ANDREYENKO, G.V.; SPEKTOROVA, Z.G.; RAYEVSKAYA, V.V.;
MOISEYEV, S.G.; BABSKIY, Ye.B.; BREDIKIS, Yu.I.; KUSHKIY, R.O.;
KALITEYEVSKAYA, V.F.; BEREZOV, Ye.; POKROVSKIY, A.V.; MEL'NIK,
I.Z.; AGRANENKO, V.A.; VINOGRADOVA, I.L.; SKACHILOVA, N.N.;
VIKHERT, A.M.; ZAMYSLOVA, K.N., prof.; SOKOLOVSKIY, V.P., prof.;
BEYUL, Ye.A., kand.med.nauk; SOLOV'YEV, V.V.

Minutes of the meetings of the Moscow Society of Therapists.
Terap.arkh. 35 no.1:112-118 Ja'63. (MIRA 16:9)
(THERAPEUTICS--ABSTRACTS)

AGRANENKO, V.A., kand. med. nauk; VINOGRADOVA, I.L., kand. med. nauk
(Moskva)

Disorders of water metabolism in acute renal insufficiency.
Klin. med. 41 no.6:85-93 Je '63. (MIRA 17:1)

1. Iz pochechnogo tsentra (zav. - kand. med. nauk V.A.
Agranenko) Tsentral'nogo ordena Lenina instituta gematologii
i perelivaniya krovi (dir. - dotsent A.Ye. Kiselev).

GROZDOV, D.M.; VINOGRADOVA, I.L.

Application of serum in conjunction with vitamin K. Klin.med.,
Moskva 29 no.3:68-70 Mar 51. (CIAML 20:7)

1. Of the Laboratory for Blood Substitutes (Head--D.M. Grozdov),
Central Order of Lenin Institute of Hematology and Blood Trans-
fusion of the Ministry of Public Health USSR (Director--Prof.
A.A. Bagdasarov, Corresponding Member of the Academy of Sciences
USSR).

AGRANENKO, V.A.; VINOGRADOVA, I.L.

Dynamics of azotemia under the influence of a hemodialysis procedure
in acute renal insufficiency caused by incompatible blood transfusion.
Probl. gemat. i perel. krovi no.10:49-55 '62.

(MIRA 17:12)

1. Iz pochechnogo tsentra (zav. V.A. Agranenko) TSentral'nogo ordena
Lenina Instituta gematologii i perelivaniya krovi (direktor - dotsent
A.Ye. Kiselev).

VINOGRADOVA, I. N.

"Utilization of the Proteolytic Enzymes of Mold Fungus From the Genus of *Aspergillus* and Proteases of Oat Malt for Preparing Feeding Media." Thesis for degree of Cand Biological Sci. Sub 16 Feb 50, Acad Med Sci USSR

Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva, Jan-Dec 1950.

VINOGRADOVA, I. N.

239740
USSR/Medicine - Nutrient Media

Nov/Dec 52

"A New Method of Obtaining Highly Active Proteolytic Enzymes From the Mold Fungus *Aspergillus Terricola*," I. N. Vinogradova, I. P. Platonova, V. A. Petrenko, Inst Epidemi and Microbiol Imeni N. F. Gamaleya, Acad Med Sci USSR

"Mikrobiol" Vol 21, No 6, pp 692-699

During World War II, at the suggestion of M. A. Peshkov, work on the prepn of bacteriol nutrient media from proteins by using proteolytic enzymes derived from *Aspergillus* fungi was launched at the above-named inst. In the present instance, work on the

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cultivation of *Aspergillus terricola* under the most favorable conditions for the development of proteolytic enzymes is described in detail.

239740

USSR / Microbiology. Technical Microbiology.

P-3
3

Abs Jour: Referat Zh.-Biol., No 6, 25 March, 1957, 21875

Author : Vinogradova, I.N.

Inst :

Title : The Utilization of Proteolytic Enzymes of Mold Fungi in Preparation of Nutritive Media for Submerged Cultivation..

Orig Pub: V.sb.: Nauch. osnovi proiz-va baktsin i sivorotok, M., 1955, 83-87

Abstract: Information is given on successful utilization of *Aspergillus terricola*, grown on bran, as a "preparation" of proteolytic enzymes adapted for degrading beef protein, casein and fish meal in preparing large quantities of nutrient media. The nutrient media prepared with the above mentioned hydrolysates were useful in the production of dysentery bacteriophage, vaccines against intestinal diseases and tularemia, and also toxins.

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MUROMTSEV, S.N.; KOLIADITSKAYA, L.S.; VINOGRADOVA, I.N.

Results of using aerated deep cultivation for the production of brucellosis vaccine. Zhur.mikrobiol.epid.i immun. 30 no.10:76-78 0 '59.
(MIRA 13:2)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.
(BRUCKELLOSIS immunol.)
(VACCINES)

BLASOVA, Ye.V.; VINOGRADOVA, I.N.; PAIKINA, N.A.

Obtaining the toxoid of *Cl. oedematiens* on nutritive media from the hydrolysate of casein and the study of its antigenic and immunogenic properties. Zhur.mikrobiol.epid.i immun. 31 no.2: 108-114 p '60. (MIRA 13:6)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR,

(*CLOSTRIDIUM* immunol.)

VINOGRADOVA, I.N.

37201

17

27 2400

S/560/61/000/011/007/012
E027/E635

AUTHORS: Zhukov-Verezhnikov, N.N., Mayskiy, I.N.,
Yazdovskiy, V.I., Pekhov, A.P., Gyurdzhian, A.A.
Nefed'yeva, N.P., Kapichnikov, M.M., Podoplelov, I.I.,
Rybakov, N.I., Klemparskaya, N.N., Klimov, V.Yu.,
Novikov, S.N., Novikova, I.S., Petrov, R.V.,
Sushko, N.G., Ugryumov, Ye.P., Fedorova, G.I.,
Zakharov, A.F., Vinogradova, I.N., Chamova, K.G.
and Buyko, Ye.A.

TITLE: The results of the first microbiological and
cytological experiments in Space in Earth satellites

SOURCE: Akademiya nauk SSSR. Iskusstvennyye sputniki Zemli.
no. 11. Moscow, 1961. Rezul'taty nauchnykh
issledovaniy, provedennykh vo vremya poletov vtorogo
i tret'yego kosmicheskikh korabley-sputnikov, 44 - 67

TEXT: The authors report the results of their investigations
of biological objects which had been exposed to space conditions
in satellite vehicles. The first part of the work was devoted
to a study of the survival of cells of differing levels of
organization under the influence of radiation and other
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The results of the ---

unfavourable factors, in comparison with control materials which remained in the laboratory over the same period. In experiments with bacteria 2ml. samples of suspensions of *Escherichia coli*, *Aerobacter aerogenes*, *Staphylococcus aureus* and *Clostridium butyricum* containing 500 million organisms or spores per ml. were sealed in ampoules, and exposed to a space flight of unstated duration; the number of viable individuals after the exposure did not differ significantly from the values for the control samples. A similar experiment was carried out with the T2 phage of *E. coli* and the 1321 phage of *A. aerogenes*, which were sent in the second satellite; again, no significant reduction in the titre of the phage preparations could be detected after return from space. Similar results were obtained with preparations of phage sent into space in the fourth and fifth satellites. Two bottles and six tubes of HeLa cells, some of which were saturated with oxygen, were exposed to space flight

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The results of the . . .

conditions, after it had first been shown that vibration and acceleration did not detach the cells from the glass. The cultures without oxygen appeared normal on return, whereas in those exposed to oxygen most of the cells had degenerated. Subculture showed that 90% of the cells, whether detached from or remaining on the glass, were dead; however, two tubes gave good growth, and the cells which grew up showed no abnormalities of morphology. No antigenic differences could be detected in the cells in anaphylaxis and desensitization experiments in guinea-pigs. In subsequent space flights fibroblast and human amnion cell cultures were studied, with similar results. Pieces of human and rabbit skin were also used. On August 12th 1960 two pieces of skin 2.5 x 3.5 cm. in size and 0.5 mm. thick were taken from a human donor, placed in Hanks solution and sent into space in the second satellite. On recovery they were regrafted on the original site in the donor and became firmly attached after seven days.

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The results of the ---

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Similar results were obtained with two other donors. An apparatus was devised for making a subculture in space, in order to study the ability of bacteria to multiply under space conditions. In experiments with *Glostridium butylicum* no deviations from the controls were observed. The second part of the work was devoted to a study of possible genetic effects brought about by exposure to space conditions, mainly by looking for the production of auxotrophic mutants and lysogeny in bacteria. The former were detected by inoculation on a layer of minimal medium which was then covered with an overlay of the same medium in order to fix the colonies. When the latter had grown up their position was noted and an overlay of complete medium was then put on, and the colonies which then grew up as a result of the diffusion of essential nutrients were selected as auxotrophic mutants. No such mutants could be found in suspensions of *Escherichia coli* recovered from the second satellite. The experiments on the induction of lysogenic bacteria were carried out on a strain of *E. coli* lysogenized by a λ phage which had been exposed to cosmic

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The results of the ---

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radiation in the fifth satellite. Free phage particles were removed by adding phage antiserum; after the end of the latent period the action of the antiserum was cut short by diluting 1:100, streptomycin was added to inhibit the host organisms, and the mixture was plated out on the indicator strain in order to count the phage particles produced. The results obtained, considered in comparison with control experiments, provided no evidence of induction by cosmic radiation during a space flight of ninety minutes. No difference was observed in the plaque morphology. No changes could be detected in the chemical and physical properties of calf thymus deoxyribonucleic acid recovered after a space flight. The results as a whole indicate that no damage was suffered by isolated cells during a brief exposure to space conditions. There are 6 figures and 10 tables. f

SUBMITTED: May 23, 1961

Card 5/5

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 [deceased];

(Continued on next card)

BUGROVA, V.I.—(continued) Card 2.

NIKITIN, M.Ya., red.; NIKOLAYEVA, T.A., red.; PAVLOVSKIY, Ye.N., akademik, red.; PASTUKHOV, A.P., kand. med. nauk, red.; PETRISHCHEVA, P.A., prof., red.; POKROVSKAYA, M.P., prof., red.; POPOV, I.S., kand. med. nauk, red.; ROGOZIN, I.I., prof. red.; RUDNEV, G.P., prof., red.; SERGIYEV, P.G., prof., red.; SKRYABIN, K.I., akad., red.; SOKOLOV, M.I., prof. red.; SOLOV'YEV, V.D., prof., red.; TRIMULEV, G.P., dotsent, red.; CHUMAKOV, M.P., prof., red.; SHATROV, I.Y., prof., red.; TIMAKOV, V.D., prof., red. toma; TROITSKIY, V.L., prof., red. toma; PETROVA, N.K., tekhn. red.;

[Multivolume manual on the microbiology, clinical aspects, and epidemiology of infectious diseases] Mnogotomnoe rukovodstvo po mikrobiologii klinike i epidemiologii infektsionnykh boleznei. Otv. red. N.N. Zhukov-Verezhnikov. Moskva, Medgiz. Vol. 1. [General microbiology] Obshchaya mikrobiologiya. Otv. red. N.N. Zhukov-Verezhnikov. 1962. 730 p. (MIRA 15:4)

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(Continued on next card)

BUGROVA, V.I.—(continued) Card 3.

2. Chlen-korrespondent Akademii nauk SSSR (for Imshenetskiy, Krasil'nikov). 3. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Planel'yes, Baroyan, Boldyrev, Gorizontov, Petrishcheva, Rogozin). 4. Deystvitel'nyy chlen Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I.Lenina (for Muromtsev).

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VINOGRADOVA, I.N., kand. med. nauk (Moskva)

Treatment and prevention of brain edema with glucocorticoids.
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VINOGRADOVA, I.N.

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(MIRA 16:6)

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F-6

USSR / Microbiology. Anaerobic Bacilli.

Abs Jour: Ref Zhur-Biol., No 16, 1958, 72217.

Author : Vinogradova, I. N., Vlasova, Ye. V., Palkina, N. A.
Inst : General Directorate of the Institutes of Vaccines
and Sera of the Ministry of Public Health of
the USSR.

Title : Casein Medium for Production of the Anatoxin
B. oedematiens.

Orig Pub: Materialy po obshchey opytom. Gl. upr. in-tov
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Abstract: A method is described for the preparation of a
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(MIRA 15:9)

(NERVOUS SYSTEM—SURGERY) (HORMONES) (BRAIN—SURGERY)

VINOGRADOVA, I.N.; VIKHRT, T.M.; KANDEL', E.I.

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(MIRA 9:11)

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instituta neirokhirurgii imeni akad. N.N.Burdenko Akademii meditsin-
skikh nauk SSSR.

(HEART, blood supply

thromboembolism, caused by surg. of spinal cord)

(ARTERIES, PULMONARY, dis.
same)

(SPINAL CORD, surg.

causing thromboembolism of heart & pulm. arteries)

VINOGRADOVA, I. N.

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1. Joint session at the Academy of Medical Sciences USSR of the Presidium of the Academy of Medical Sciences USSR, the Main Military Medical Administration of the Soviet Army, First Moscow Order of Lenin Medical Institute, Institute of Neurosurgery imeni Academician N. N. Burdenko of the Academy of Medical Sciences USSR, Faculty Surgical Clinic imeni Academician N. N. Burdenko, of the First Moscow Order of Lenin Medical Institute, and the Main Military Hospital imeni Academician N. N. Burdenko to commemorate the 75th birthday of Academician Nikolay Nilovich Burdenko.

ZHUKOV-VEREZHIKOV, N.N.; Mayskiy, I.N.; YAZDOVSKIY, V.I.; PERKOV, A.F.;
CYURDZIAN, A.A.; METED'YEVA, N.P.; KAPICHNIKOV, M.M.; PODOLIL'Y,
I.I.; RYBAKOV, N.I.; FLEMFARSKAYA, N.N.; KLIKOV, V.Yu.; NOVIKOV,
S.N.; NOVIKOVA, I.S.; PETROV, R.V.; SUSHKO, N.G.; UGRYUMOV, Ye.P.;
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SOURCE: AN SSSR. Izvestiya, 1971, No. 1, p. 1.

TOPIC TAGS: ferroelectricity; phase transition; proton resonance

showed a maximum in this temperature range. The proton resonance spectra have two lines: a broad line due to the water of crystallization, and a narrow line due to the CH_3NH_3 or the NH_4 groups. The intensity of the narrow line of the CH_3NH_3 compound decreased

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L 57036-65

ACCESSION NR: AP5016118

with increasing temperature below the Curie point, 1000°C, in the Mn.
the low temperature side

STANDARD

NO. 100

Card 2/2

VINOGRADOVA, I. V.

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ca

The composition of pine needle oil of *Pinus halepensis* Mill cultivated in the Crimea. B. N. RUTOVSKII AND I. V. YINOGRADOVA. Trans. Sci. Chem.-Pharm. Inst. (Moscow) No 19, 100-113 (in German 113-4) (1928); Chem. Zentr. 1028, 11. 2516

The oil had the following const.: d_{4}^{20} 0.8600, $[n]_D^{20}$ = -49.44°, n_D^{20} = 1.4040, acid no 1.13, ester no. 18.8, ester no. after acetylation 54.83 (total alc. C₁₇H₃₅O = 15.7%) The oil is insol. in 90% alc. The fractional distn. revealed that the oil contained about 10% of a pinene present as a mixt. of the l- and d- compds., about 6% camphene, about 13% terp. alcs. and about 8% sesquiterpenes, which apparently were a mixt. of homocaryophyllenes. The difficultly volatile residue after fractional distn. (about 20%) probably contains a compd., which is strongly optically active. Homoced and PhCH₃, CH₃OH were absent.

17

Composition of the oil of *Drosoccephalum moldavica* L. B. M. RUTOVSKII AND I. V. VINOGRADOVA. *Trans. Sci. Chem.-Pharm. Inst. (Moscow)* No. 22, 5-14 (in German) 14-8 (1930).—See C. A. 24, 3322. E. J. C.

ALSO SEE METALLURGICAL LITERATURE CLASSIFICATION

17

CO

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2010-2019

2020-2029

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